

and wherein the mutant endotoxin has substantially reduced toxicity when compared to the endotoxin of the wild type gram-negative bacterial pathogen.

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cont

23. (Amended) A mutant endotoxin [of substantially reduced toxicity,] made according to the method of claim 22, wherein the mutant endotoxin [having substantially reduced toxicity] was purified from the *htrB* mutant by [a process selected from the group consisting of a phenol/water] ~~phenol-water~~ extraction[, and a] ~~or by~~ protease digestion[; and wherein the purified mutant endotoxin having substantially reduced toxicity is used to generate endotoxin-specific antibodies].

24. (Amended) The mutant endotoxin according to claim 23, [further comprising conjugation] wherein the mutant endotoxin is conjugated to a carrier protein.

25. (Amended) A mutant endotoxin [of substantially reduced toxicity,] made according to the method of claim 22.

26. (Amended) The mutant endotoxin according to claim 25, [further comprising conjugation] wherein the mutant endotoxin is conjugated to a carrier protein.

29. (Amended) A method for producing endotoxin-specific antisera for [a use selected from the group consisting of in diagnostic assays, and for passive immunization] use in diagnostic assays, the method [comprises] comprising

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(a) immunizing an individual with a vaccine formulation comprising as an active ingredient [selected from the group consisting of] an *htrB* mutant of a gram-negative bacterial pathogen, endotoxin isolated from the *htrB* mutant of [said] the gram-negative bacterial pathogen, and endotoxin isolated from the *htrB* mutant of [said] the gram-negative bacterial pathogen [said endotoxin] wherein the endotoxin is conjugated to a carrier protein; and

(b) collecting antibody produced from [said] the immunized individual;

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wherein [said] the *htrB* mutant lacks one or more secondary acyl chains of lipid A contained in the wild type gram-negative bacterial pathogen resulting in substantially reduced toxicity when compared to lipid A of the wild type gram-negative bacterial pathogen.

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30. (New) A method for producing endotoxin-specific antisera for use in passive immunization, the method comprising

(a) immunizing an individual with a vaccine formulation comprising an active ingredient an *htrB* mutant of a gram-negative bacterial pathogen, endotoxin isolated from the *htrB* mutant of the gram-negative bacterial pathogen, and endotoxin isolated from the *htrB* mutant of the gram-negative bacterial pathogen wherein the endotoxin is conjugated to a carrier protein; and

(b) collecting antibody produced from the immunized individual;

wherein the *htrB* mutant lacks one or more secondary acyl chains of lipid A contained in the wild type gram-negative bacterial pathogen resulting in substantially reduced toxicity when compared to lipid A of the wild type gram-negative bacterial pathogen.

31. (New) The mutant endotoxin according to claim 23, wherein the purified mutant endotoxin is used to generate endotoxin-specific antibodies.

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### REMARKS

Reconsideration and withdrawal of the rejections of the claims, in view of the amendments and remarks presented herein, is respectfully requested.

#### A. Status of Claims

Reconsideration of this application as amended is requested. Claims 1-21, 27 and 28 having been cancelled in response to the Restriction Requirement; claims 22-26 and 29 having been amended; and claims 30 and 31 having been newly added; claims 22-26 and 29-31 are pending. No new subject matter has been added.